

REMARKS

Claims 1-7 and 21-25 are pending in the application. Claims 1 and 21 are independent. No new matter has been added by the amendments. Applicants respectfully request reconsideration of the present application.

I. Rejection of claims 1-7

Claims 1, 2 and 5-7 stand rejected under 35 U.S.C. 103 as being unpatentable over DeWolff (PCT/US91/09252) in view of Malloy-Desormeaux (US 6,577,821) and Sayag (US 5,585,847), claim 3 stands rejected under 35 U.S.C. 103 as being unpatentable over DeWolff in view of Malloy-Desormeaux, Sayag, and Lanzillotta (US 5,781,333), and claim 4 stands rejected under 35 U.S.C. 103 as being unpatentable over DeWolff in view of Malloy-Desormeaux, Sayag, and Shibuya (US 5,986,705). Applicant respectfully traverses.

Independent Claim 1

The Examiner contends that DeWolff discloses many of the features of claim 1 except, among other things, the feature of “positioning the shutter device between the [focusing] lens and the image sensor.” The Examiner further contends that Sayag not only discloses this feature, but also provides a motivation or suggestion to modify DeWolff. Applicant agrees with the Examiner that DeWolff does not teach or suggest “positioning the shutter device between the lens and the image sensor.” However, Applicant disagrees with that there is a suggestion or motivation to modify the invention of DeWolff based on the teachings of Sayag.

There is no suggestion or motivation to modify DeWolff so that the shutter device is positioned between a focusing lens and the image sensor because there is simply no good reason for such a modification. Moreover, not only is there no good reason to implement such a modification, but also such a modification would render the invention disclosed in DeWolff inoperative for its intended purpose. It is well established that there can be no suggestion or motivation to modify a reference’s teachings if such modification would render the prior art unsatisfactory for its intended purpose. See M.P.E.P. § 2143.01 (“if proposed modification would render the prior art invention being modified unsatisfactory for

its intended purpose, then there is no suggest or motivation to make the proposed modification.”).

There is no good reason to modify the invention of DeWolff so that the shutter device is “positioned between said lens [for focusing light from a scene] and said image sensor.” As the Examiner correctly notes, such a modification would require “placing a lens in front of the LCD shutter.” The Examiner contends that one would be motivated to place a “lens” in front of the LCD shutter because the lens would protect the “relatively delicate shutter.” But, nothing in DeWolff suggests that the LCD shutter is delicate and in need of protection. Furthermore, even if we were to assume for the sake of argument that the LCD shutter needs protection, why would someone use a relatively expensive lens for focusing light to protect the shutter when other, much cheaper, protection devices are available? For example, a cheap, simple transparent filter would protect the shutter as well as, if not better, than a relatively more expensive lens for focusing light. In other words, a “lens for focusing light” is designed to perform the function of “focusing light,” it is not designed to “protect” a shutter device. Thus, why would someone be motivated to use a lens for focusing light as a protection element? The answer is simple, someone would not be so motivated. As stated above, there is simply no good reason to modify the invention of DeWolff by placing a “lens for focusing light” in front of the LCD shutter. For at least this reason, the rejection of claim 1 should be withdrawn.

Furthermore, the Examiner’s proposed modification of DeWolff would render the invention of DeWolff unsatisfactory for its intended purpose. For this additional reason, the rejection of claim 1 should be withdrawn. Placing a “lens for focusing light” in front of the LCD shutter 13 would distort the image received by CCD camera 28 and photosensitive medium 20. It would distort the image because the lens would inherently focus (i.e., distort) the light emitted from lamphouse 12. There is simply no reason to focus the light emitted from lamphouse 12 until after that light passes through the negative 14. That is why DeWolff includes (1) a print lens 18 that is positioned between the negative 14 and photosensitive medium 20 and (2) a lens 38 that is positioned between the negative 14 and the CCD camera 28. In fact, focusing the light emitted from the lamphouse 12 before the light reaches the negative 14 would change the resulting image captured by photosensitive

medium 20 and CCD camera 28. In short, the Examiner's proposed modification of DeWolff would render the invention of DeWolff unsatisfactory for its intended purpose. Thus, for this additional reason, there is no motivation of suggestion to place a lens in front of LCD shutter 13.

Dependent Claims 2-7

Claims 2-7 depend from claim 1. Therefore, claims 2-7 are patentable over the art of record for at least the same reasons give above with respect to claim 1.

II. Rejection of claims 21-25

Claims 21, 22 and 24 stand rejected under 35 U.S.C. 103 as being unpatentable over Bryant (US 5,030,985) in view of Cornuejols (US 5,193,016), claim 23 stands rejected under 35 U.S.C. 103 as being unpatentable over Bryant in view of Cornuejols and Lanzillotta, and claim 25 stands rejected under 35 U.S.C. 103 as being unpatentable over Bryant in view of Cornuejols and DeWolff. Applicant respectfully traverses.

Independent Claim 21

The Examiner contends that Bryant discloses many of the features of claim 21 except, among other things, the feature of "exposing individual pixels to light for different amounts of time." The Examiner further contends that Cornuejols not only discloses this feature, but also provides a motivation or suggestion to modify Bryant. Applicant agrees with the Examiner that Bryant does not teach or suggest "exposing individual pixels to light for different amounts of time." However, Applicant disagrees with that there is a suggestion or motivation to modify the invention of Bryant based on the teachings of Cornuejols.

There is no suggestion or motivation to modify the invention of Bryant so that the invention "exposes individual pixels to light for different amounts of time" because there is simply no good reason for such a modification. The Examiner contends that "an advantage of exposing individual pixels to light for different amounts of time is that individual pixels be as sensitive as necessary, depending on the composition of a particular subject" (see Office Action, page 8). However, this advantage is achieved by the invention disclosed in Bryant without the need to modify the invention. That is, Bryant describes a system that automatically darkens individual shutter elements of the shutter device depending on the

composition of a particular subject to produce a well balanced photograph (i.e., a photograph that does not have any parts that are either overexposed or underexposed). Accordingly, why would anyone modify the invention of Bryant to achieve an objective that the invention of Bryant already achieves?

The only answer that makes sense is that one would be motivated to modify the invention of Bryant if the proposed modification would make the invention less complex (i.e., easier and/or less costly) to implement in practice. However, the modification proposed by the Examiner does the opposite. The modification would make the invention of Bryant more complex than it already is. As it is, the invention of Bryant is simple and elegant. The invention simply includes a matrix of light detectors 13 that is used to control the shutter device 19. More specifically, each light detector within matrix 13 is associated with a shutter element 21 (i.e., "light valve cell") of shutter device 19. If a light detector within matrix 13 senses a high intensity of light, then the shutter element 21 corresponding to that light detector will automatically be darkened, thereby ensuring that the pixel corresponding to the shutter element will not be overexposed and saturated. See Bryant, col. 2, ll. 12-23 and col. 3, ll. 3-15. This invention is a simple and elegant solution to the problem.

The Examiner suggests that one would be motivated to modify the invention so that the invention "exposes individual pixels to light for different amounts of time." First, as discussed above, such a modification is not necessary. And second, such a modification would make the invention of Bryant more complex, not less. Such a modification necessarily requires not only the matrix of light detectors 13 or its equivalent, but also a means to determine an amount of time for which each shutter element 21 will be activated and a timing circuit or the like to ensure that each shutter element 21 is activated for no more than the determined amount of time. Thus, the Examiner's proposed modification would make the invention of Bryant more complex, not less. Accordingly, one skilled in the art would not be motivated to modify the invention of Bryant based on the teachings of Cornuejols. Without such a motivation, the rejection of claim 21 over Bryant in view of Cornuejols should be withdrawn.


Dependent Claims 22-25

Claims 22-25 depend from claim 21. Therefore, claims 22-25 are patentable over the art of record for at least the same reasons give above with respect to claim 21.

CONCLUSION

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections, and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

RESPECTFULLY SUBMITTED,					
NAME AND REG. NUMBER	Brian Rosenbloom, Registration No.: 41,276				
SIGNATURE				DATE	9/15/05
Address	Rothwell, Figg, Ernst & Manbeck Suite 800, 1425 K Street, N.W.				
City	Washington	State	D.C.	Zip Code	20005
Country	U.S.A.	Telephone	202-783-6040	Fax	202-783-6031